

### **REMARKS/ARGUMENTS**

Claims 1-11 were presented for examination and are pending in this application. In the non-final office action dated May 18, 2009, claims 1–11 were rejected. The Applicant thanks the Examiner for his careful consideration of the present application and addresses the grounds of rejection in the following remarks.

Applicant herein amends claims 1 and 8 and respectfully traverses the Examiner's prior rejections. No claims are currently canceled and no new claims are added. These changes are believed not to introduce new matter, and their entry is respectfully requested. The claims have been amended to expedite the prosecution and issuance of the application. In making this amendment, the Applicant has not and is not narrowing the scope of the protection to which the Applicant considers the claimed invention to be entitled, and does not concede, directly or by implication, that the subject matter of such claims was in fact disclosed or taught by the cited prior art. Rather, the Applicant reserves the right to pursue such protection at a later point in time and merely seeks to pursue protection for the subject matter presented in this submission.

Based on the above amendment and the following remarks, Applicant respectfully requests that the Examiner reconsider all outstanding rejections and withdraw them.

### **OBJECTION TO THE DRAWINGS**

The Examiner objects to the drawings because they fail to show "curve 16" as described in the specification in paragraph [0034]. The curve shown in Fig. 3 possesses several numerical references to identify various portions of the curve. Paragraph [0034] was in error to refer to a single point and is herein corrected to generally refer to the entire curve shown in Fig. 3. Withdrawal of the

objection is respectfully requested.

### **OBJECTION TO CLAIMS**

Claims 1 and 8 were objected to for using “adaptative”, which is not a word. As suggested by the Examiner, claims 1 and 8 are herein amended to replace “adaptative” with “adaptive”. Withdrawal of the objection is respectfully requested.

### **REJECTION OF CLAIMS**

Claims 1, 8, 10, and 11 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent Application Publication 2003/0081697 by Little (“Little”). Claims 2 – 4 and 9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Little in view of U.S. Patent 4,709,274 by Tanioka. Finally, claims 5–7 were rejected under 35 U.S.C. § 103(c) as being unpatentable over Little in view of U.S. Patent 1,566,169 by Lavrenov. The Applicant traverses the rejections based upon the following remarks and respectfully requests reconsideration.

MPEP §2131 provides:

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegall Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir.1987). “The identical invention must be shown in as complete detail as contained in the claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989).

According to the present claimed invention, an adaptive slicer threshold is derived from averages of a plurality of maximum and minimum values of a received signal. As described in the background section of the present invention, prior art methodology to derive slicer thresholds typically uses a single maximum and minimum value to arrive at a midpoint. However, these maximum and minimum values are absolute values which creates a slicer threshold sensitive to noise, especially when the noise indices have large peaks and valleys. The present invention detects several maximum and minimum values and thereafter averages these maximum and minimum values to calculate a robust slicer threshold which is less sensitive to noise. Thus, according to the present invention, a single large peak will have minimal impact on the slicer threshold.

Little, cited as being anticipatory of the present invention, presents a means by which to derive a slicer threshold consistent with that described in the background of the present invention. Little appears to utilize a moving average of all signals so as to determine a slicer threshold. And, in an alternative embodiment, Little uses a single maximum and minimum to determine a slicer threshold.

In paragraphs [0021] – [0026] Little described a methodology by which a moving average of all binary “1’s” and “0’s” are determined. Using this average, a slicer threshold is determined. (see paragraph [0028] of Little).

Absent from Little is the use of an average of several detected maximum values and the average of several detected minimum values. The rejection attempts to address this deficiency in Little by turning to a second embodiment as shown in Fig. 6 and 7 of Little and described in paragraphs [0036] – [0044].

As identified in the background section of the present invention, Little describes in paragraphs [0036] – [0044] a process by which maximum and minimum values are determined. Specifically, a minimum detector identifies a minimum value of a binary one and a maximum detector determines the maximum value of a binary zero. These values are combined to determine a slicer threshold.

The present invention claims averaging several maximum values detected over a predetermined period and averaging several minimum values, also detected over a predetermined period, of the received signal. Little on the other hand describes using a single maximum binary “0” and a single minimum “1”. These concepts are distinct.

The use of an average of several maximum signal values and of an average of several minimum signal values to determine a slicer threshold has the substantial benefit of reducing the slicer’s sensitivity to noise that may be introduced by a maximum or minimum value. This new and nonobvious technique is not disclosed by Little. Accordingly, the Applicant deems the present invention novel over Little.

As claims 1 and 8 are novel over Little and each dependent claim maintains the limitations presented in claim 1 and 8, they, too, are deemed novel over Little. Furthermore, the art cited against each dependent claim under a rejection of obviousness fails to resolve the above identified deficiency of Little. Accordingly, they too are deemed patentable over Little in combination with Tanioka and/or Lavrenov. Reconsideration is respectfully requested.

In view of all of the above, the claims are now believed to be allowable and the case in condition for allowance, which action is respectfully requested.

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Reply to Office Action of May 18, 2009

Should the Examiner be of the opinion that a telephone conference would expedite the prosecution of this case, the Examiner is requested to contact Applicant's attorney at the telephone number listed below.

Please charge deposit account 50-1123 \$130 for the Petition of One Month Extension of Time which is believed due for this submittal. Any additional fees associated with this submittal may be charged to Deposit Account No. 50-1123.

Respectfully submitted,

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